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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,182	03/16/2004	Francis W. Hughto-Delzer	2003-801.nonprov	5107

7590

08/11/2006

Louis J. Franco  
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EXAMINER
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RODRIGUEZ, RUTH C

ART UNIT	PAPER NUMBER
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3677

DATE MAILED: 08/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/803,182	Applicant(s) HUGHTO-DELZER ET AL.	
	Examiner Ruth C. Rodriguez	Art Unit 3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2006.  
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,2,6-14 and 21-24 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1,2,6-14 and 21-24 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 16 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 8-11, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wright (US 3,212,746) in view Lee (US 1,872,471).

Wright teaches a swingbolt hook (26). The hook comprises a base (25) and a swingbolt catch (28). The base has rear and front surfaces and extending along a base axis between first and second ends (Fig. 5). The base being is mounting to a second object with the rear surface of the base in contacting engagement with the second object (Fig. 5). The swingbolt catch selective retains engagement with a hook catch (10) of a swingbolt (4). The swingbolt catch depends from the base and has base and distal ends and first and second opposed surfaces (Fig. 5). Each of the first and second surfaces extends laterally between left and right sides of the swingbolt catch (Figs. 1 and 5). The first surface extends between the front surface of the base and the distal end of the swingbolt catch and is adjacent to, and joined through a first transition region with, the front surface of the base (Fig. 5). The second surface extends between the rear surface of the base and the distal end of the swingbolt catch and is joined, through

a second transition region, with the rear surface of the base, the first and second surfaces being oriented to one another such that, as viewed into a first cross-sectional plane passing through the first and second surfaces and between the left and right sides of the swingbolt catch (Fig. 5). A second cross-sectional plane passing through the first and second surfaces and the left and right sides of the swingbolt catch, at least one of (i) the first surface of the swingbolt catch is convex and (ii) the second surface of the swingbolt catch is concave (Fig. 5). Wright fails to disclose that the hook has the first and second surfaces extend along, respectively, first and second catch-surface axes that converge away from the base such that the swingbolt catch increases in thickness between the first and second surfaces with increased proximity to the base. However it is well known in the latch mechanisms to provide a hook that has the first and second surfaces extend along, respectively, first and second catch-surface axes that converge away from the base such that the catch increases in thickness between the first and second surfaces with increased proximity to the base as taught by Lee. The latch mechanism comprises a hook (13) having a base and a catch (Figs. 2 and 3). The base has rear and front surfaces and extending along a base axis between first and second ends (Figs. 2 and 3). The base being is mounting to a second object with the rear surface of the base in contacting engagement with the second object (Figs. 2 and 3). The catch selective retains engagement with a hook catch of the other latching element (Figs. 2 and 3). The catch depends from the base and has base and distal ends and first and second opposed surfaces (Figs. 2 and 3). Each of the first and second surfaces extends laterally between left and right sides of the catch (Figs. 2 and

3). The first surface extends between the front surface of the base and the distal end of the catch and is adjacent to, and joined through a first transition region with, the front surface of the base (Figs. 2 and 3). The second surface extends between the rear surface of the base and the distal end of the catch and is joined, through a second transition region, with the rear surface of the base, the first and second surfaces being oriented to one another such that, as viewed into a first cross-sectional plane passing through the first and second surfaces and between the left and right sides of the catch (Figs. 2 and 3). The first and second surfaces extend along, respectively, first and second catch-surface axes that converge away from the base such that the catch increases in thickness between the first and second surfaces with increased proximity to the base (Figs. 2 and 3). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the hook that has the first and second surfaces extend along, respectively, first and second catch-surface axes that converge away from the base such that the catch increases in thickness between the first and second surfaces with increased proximity to the base since a change in the shape of a prior art device is a design consideration within the skill of the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). In this instance, Lee also teaches that having such a shape for a stationary hook being used for a latch is known in the art to mate with the shape of the other latching member. Additionally, such a change also provides a more secure connection between the swingbolt hook and the swingbolt since the hook can not cause any loosening of the swingbolt due accidental contact between the hook and the elongated rod.

Lee also teaches that the first cross-sectional plane includes the base axis and the first catch-surface axis defines, with the base axis, a first angle that is one of (i) 90 degrees and (ii) acute and (b) the second catch-surface axis defines, with the base axis, a second angle that is more acute than the first angle (Figs. 2 and 3).

Regarding claim 8, the same rejection of claim 1 serves to reject claim 8 since Wright also discloses that the teaches a swingbolt comprising and elongated rod (4), a set of external threads and a hook catch (9). The elongated rod has a first end pivotably mountable to a first object (2) and a second end longitudinally opposite the first end (Fig. 1). A set of external threads extends along at least a portion of the rod (Figs. 1, 3 and 4). The hook catch is slidably retained by the rod and longitudinally translates along the rod and has an interior surface (Figs. 1, 3 and 4). The internally threaded nut situated between the second end of the rod and the hook catch such that the nut can be selectively caused to exert a force against the hook catch in the direction of the first end of the rod (Fig. 1). The interior surface of the hook catch is placed in contacting engagement with the swingbolt catch and the nut is threadedly advances towards the first end of the rod so as to exert at least a predetermined minimum force against the hook catch. The swingbolt catch and the hook catch are drawn into retaining engagement.

Regarding claim 21, a combination of the limitations of claim 1 and claim 8 will yield the limitations of claim 21.

3. Claims 6, 7, 12-14 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Wright as applied to claims 4, 8, 9, 11 and 18 above, and further in view of Shimizu (US Re. 33,879).

The combination of Wright and Lee disclose a swingbolt hook having all the features mentioned above for the rejection of claims 1, 2, 4, 8, 9, 11, 21 and 22. Wright and Lee fails to disclose that at least a portion of the hook includes a wear-resistant coating. However, Shimizu teaches a hook assembly (1). The hook assembly is covered by titanium nitride (TiN). The coating provides wear resistance. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include a wear-resistance coating as taught in Shimizu in the swingbolt hook disclosed by Lee where at least a portion of the hook include a wear-resistance coating. Doing so, provides hardness and wear-resistance.

### ***Response to Arguments***

4. Applicant's arguments filed 19 May 2006 have been fully considered but they are not persuasive.

5. The Applicant argues that the combination of Lee and Wright is not obvious because both references are not from the same field of endeavor since one uses a resilient material with the hook and the other uses a swingbolt with a nut and a rod in combination with the hook. The Examiner fails to be persuaded by this argument. In order to better illustrate the rejection the Examiner has changed the rejection and used

Wright as the base reference and Lee as the teaching reference. The Examiner disagrees with the Applicant's assertion that the documents of Wright and Lee are not from the same field of endeavor because both reference use different structure to secure the first member to the second member and the element being modified is a static hook whose only purpose is to mate with a similarly shaped latch member. The references are considered to be within the same field of endeavor because they both use a static hook element to connect a first member to a second member and only this static hook element is being changed to obtain the claim limitations in accordance to the teachings of Lee.

6. In response to applicant's argument based upon the age of the references, contentions that the reference patents are old are not impressive absent a showing that the art tried and failed to solve the same problem notwithstanding its presumed knowledge of the references. See *In re Wright*, 569 F.2d 1124, 193 USPQ 332 (CCPA 1977).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Form PTO 892- Notice of Reference cited contains all the references that show the state of the art with respect to swingbolt hooks or protective coatings for hooks.



Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth C. Rodriguez whose telephone number is (571) 272-7070. The examiner can normally be reached on M-F 07:15 - 15:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on (571) 272-7075.


Submissions of your responses by facsimile transmission are encouraged. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-6640.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ruth C. Rodriguez  
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rcr  
August 7, 2006

  
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